WHAT IS CLAIMED IS:

1. A method of blending a subpicture signal and a video signal comprising:

receiving a subpicture signal, the subpicture signal providing a plurality of alpha values and information identifying or to identify a plurality of subpicture Y, U and V values;

receiving a video signal, the video signal including a set of Y values, a set of U values and a set of V values provided in a planar format;

blending each of the Y values of the video signal with a corresponding Y value of the subpicture signal based on a corresponding alpha value to generate a set of blended Y values;

blending each of the U values of the video signal with a corresponding U value of the subpicture based on a corresponding alpha value to generate a set of blended U values;

blending each of the V values of the video signal with a corresponding V value of the subpicture based on a corresponding alpha value to generate a set of blended Y values;

wherein the generated sets of blended Y values, U values and V values are provided in a planar format.

2. The method of claim 1 wherein the step of receiving a subpicture signal comprises the step of receiving a subpicture signal, the subpicture signal including a plurality of alpha values and a plurality of palette indexes.

3. The method of claim 2 and further comprising the step of identifying subpicture Y, U and V values based upon the palette indexes.

4. The method of claim 1 wherein the Y, U and V values of the video signal are provided in a 4:2:0 format, and wherein the steps of blending are performed in the 4:2:0 format.

5. The method of claim 1 wherein the step of blending each of the Y values comprises the steps of:

performing motion compensation on each of the Y values of the video signal; and

blending each of the motion compensated Y values of the video signal with a corresponding Y value of the subpicture based on a corresponding alpha value to generate a set of blended Y values.

6. The method of claim 1 wherein the step of blending each of the U values comprises the steps of:

performing motion compensation on each of the U values of the video signal; and

blending each of the motion compensated U values of the video signal with a corresponding U value of the subpicture based on a corresponding alpha value to generate a set of blended U values.

7. The method of claim 1 wherein the step of blending each of the V values comprises the steps of:

performing motion compensation on each of the V values of the video signal; and

blending each of the motion compensated V values of the video signal with a corresponding V value of the subpicture based on a corresponding alpha value to generate a set of blended V values.

8. The method of claim 1 wherein the step of receiving a subpicture signal comprises the step of receiving a subpicture signal, the subpicture signal including a plurality of alpha values and a plurality of palette indexes;

the method further comprising the steps of:

loading a palette with subpicture Y values and identifying one or more subpicture Y values based upon one or more of the palette indexes prior to the step blending each of the Y values of the video signal;

loading the palette with subpicture U values and identifying one or more subpicture U values based upon one or more of the palette indexes prior to the step blending each of the U values of the video signal; and

loading the palette with subpicture V values and identifying one or more subpicture V values based upon one or more of the palette indexes prior to the step blending each of the V values of the video signal.

9. The method of claim 1 and further comprising converting the sets of blended Y values, U values and V values from a planar YUV 4:2:0 format to an interleaved YUV 4:2:2 format.

10. The method of claim 9 and further comprising the step of color converting the blended Y values, U values and V values from a YUV 4:2:2 format to a RGB format.

11. The method of claim 1 wherein said steps of blending are performed at render time.

12. The method of claim 1 wherein the video signal comprises a DVD video signal, and wherein the subpicture signal comprises a DVD subpicture signal.

13. The method of claim 3 wherein the step of identifying subpicture Y, U and V values based upon the palette indexes comprises the steps of:

loading a palette with subpicture Y values, identifying one or more subpicture Y values based one or more indexes, and performing the step of blending each of the Y values in a first pass;

loading a palette with subpicture U values, identifying one or more subpicture U values based one or more indexes, and performing the step of blending each of the U values in a second pass;

loading a palette with subpicture V values, identifying one or more subpicture V values based one or more indexes, and performing the step of blending each of the V values in a third pass.

14. A method of blending a subpicture signal and a video signal comprising:

receiving a subpicture signal, the subpicture signal providing a plurality of subpicture values, each subpicture value including an alpha value and an index to a subpicture palette;

receiving a video signal including a set of Y values, a set of U values and a set of V values, the sets of Y, U and V values being provided in a planar format;

based on a corresponding alpha value, blending each of the Y values of the video signal with a Y palette value referenced by a corresponding subpicture palette index to generate a set of blended Y values;

based on a corresponding alpha value, blending each of the U values of the video signal with a U palette value referenced by a corresponding subpicture palette index to generate a set of blended U values;

based on a corresponding alpha value, blending each of the V values of the video signal with a V palette value referenced by a corresponding subpicture palette index to generate a set of blended V values;

wherein the sets of blended Y values, U values and V values being provided in a planar format.

15. The method of claim 14 and further comprising the steps of:

loading the subpicture palette with a plurality of subpicture Y palette values before performing the step of blending each of the Y values of the video signal;

loading the subpicture palette with a plurality of subpicture U palette values before performing the step of blending each of the U values of the video signal; and

loading the subpicture palette with a plurality of subpicture V palette values before performing the step of blending each of the V values of the video signal.

16. The method of claim 15 wherein the subpicture palette comprises a texture palette loaded with subpicture values for performing the steps of blending.

17. A circuit for blending video signals and subpicture signals comprising:

a palette to output at least one subpicture value based on a palette index;

an alpha-blend unit coupled to the subpicture palette to blend a set of luminance values of a video signal with a set of luminance values of a subpicture signal in one pass and to blend a set of chrominance values of the video signal with a set of chrominance values of the subpicture signal in a separate pass, the luminance and chrominance values of the video signal being provided to the alpha-blend unit in a planar format.

18. The circuit of claim 17 wherein the palette is a dual-purpose palette which can operate as a texture palette or a subpicture palette.

19. The circuit of claim 18 wherein the palette, when operating as a subpicture palette includes indices based upon a native index and a native alpha value.

20. The circuit of claim 17 and further comprising a motion compensation circuit for motion compensating each of the luminance and chrominance values of the video signal prior to being blended with the subpicture signal.

21. A circuit for blending video signals and subpicture signals comprising:

a subpicture palette to output at least one subpicture value based on a palette index;

an alpha-blend unit to blend a set of subpicture Y values output from the subpicture palette with corresponding Y values of a video signal in a first pass, to blend a set of subpicture U values output from the subpicture palette with corresponding Y values of the video signal in a second pass and to blend a set of subpicture V values output from the subpicture palette with corresponding V values of the video signal in a third pass, the Y, U and V values of the video signal being provided to the alpha-blend unit an a planar format.

22. A circuit for blending video signals and subpicture signals comprising:

a subpicture palette to output at least one subpicture value based on a palette index;

an alpha-blend unit to blend subpicture luminance and chrominance values output from the subpicture palette with corresponding luminance and chrominance values of a video signal provided in a 4:2:0 planar format using multiple passes.

23. A circuit for blending video signals and subpicture signals comprising:

a subpicture palette to output at least one subpicture value based on a palette index;

an alpha-blend unit to blend subpicture Y, U and V values output from the subpicture palette with corresponding Y, U and V values of a video signal provided in a 4:2:0 planar format using multiple passes.

24. The circuit of claim 23 wherein the alpha-blend unit comprises an alpha-blend unit to blend each subpicture Y value with a Y value of the video signal based on a corresponding alpha value to generate a set of blended Y values, to blend each subpicture U value with a U value of the video signal based on a corresponding alpha value to generate a set of blended Y values and to blend each subpicture V value with a V value of the video signal based on a corresponding alpha value to generate a set of blended V values.

25. The circuit of claim 23 wherein the subpicture palette comprises a dual-purpose palette which can operate as either a texture palette or a subpicture palette.

26. The circuit of claim 24 wherein the palette is reloaded with a plurality of Y subpicture values to allow the alpha blend unit to blend each Y value of the video signal with a subpicture Y value in a first pass, the palette is reloaded with a plurality of U subpicture values to allow the alpha blend unit to blend each U value of the video signal with a subpicture U value, and the palette is reloaded with a plurality of V subpicture values to allow the alpha blend unit to blend each U value of the video signal with a subpicture V value, the blending of the Y, U and V values being performed in separate passes.